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U.S.EPA
999 18th Street, Suite 300
8EPR-EP
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In this Issue:

Students around a stream table learning how rivers move and are formed.
~Photo by River Keepers

Red River Water Festival

~by Christine Holland, River Keepers and Stacey Eriksen, EPA Region 8

Over 1300 students from Harwood, Horace, West Fargo, Fargo, Moorhead and Lake Park-Audubon attended the largest ever Red River Water Festival. The annual fall water festival was held September 30, October 1 and October 2, 2002 at the Moorhead, MN Armory. A family session was held the evening of October 1. The festival is targeted to 4th grade students in the Buffalo-Red Watershed District and the Southeast Cass Water Resource District.

The Red River Water Festival was an educational, fun-filled learning opportunity which increased student awareness and knowledge of water, one of our greatest resources. The objective of the Festival was to enable students to learn how to gather information needed to make informed decisions about water use and protection, increasing their awareness and appreciation of water resources in our area. The water festival included hands-on presentations about water quality, how rivers are formed, history of water, water conservation and more. Each class participated in an opening ceremony and four separate 25 minute interactive presentations. Presentations included information and interactive activities on a variety of topics such as watersheds, non-point source pollution, water properties and water quality. There was a resource area full of information about water for teachers to take. Each student went home with a bag of information such as a water books, bookmarks, pencils and more.

Presenters included: Project WET (Water Education for Teachers), North Dakota State Water Commission, Red River Riparian Project, ND Department of Health, Moorhead Public Service, City of Fargo Utilities, US Bureau of Reclamation, Red River Basin Commission, and Prairie Wetlands Learning Center. Sponsors included: the Environmental Protection Agency Region 8, Project WET, Make A Splash, and the Clay County Soil and Water Conservation District.

River Keepers was presented the "Outstanding Program Award" at the Twentieth Annual Red River Basin Land and Water International Summit Conference in Winnipeg. The award recognizes an organization for its development of a program within the basin that furthers the goals of the Red River Basin Commission. River Keepers shared the award with Grand Forks' Dakota Science Center for coordinating successful youth Water Festivals.

For more information, please contact **Christine Holland** with Fargo-Moorhead River Keepers at 701-235-2895 or **riverkeepers@i29.net**

Happy 30th Birthday Clean Water Act!

~by George Parrish, EPA Region 8

National Water Monitoring Day October 18, 2002 marked the 30th anniversary of passage of the Clean Water Act. EPA Administrator Christie Whitman, celebrated by announcing its commemoration as the first National Water Monitoring Day, a highlight of the year-long celebration of the Clean Water Act, The Year of Clean Water, which began in June 2002.

How is the Clean Water Act at age 30? Looking back provides meaningful perspective on the accomplishments since its birth. The Federal Water Pollution Control Act, commonly known as the Clean Water Act, was initially passed in 1972 in response to public outcry over the condition of U.S. waters. At that time many of our nation's waterways were too polluted for swimming, fishing and other uses, demonstrated by the poignant image of Cleveland's Cuyahoga River actually bursting into flames in 1969. The Act launched an all-out assault on water pollution, including new controls on industrial discharges, support for reductions in non-point source pollution caused by contaminated runoff, major federal investments helping communities build and upgrade sewage treatment facilities, and requiring states and tribes to monitor and report water quality. Today our rivers, lakes, wetlands and estuaries are much healthier and better understood, benefiting from the Clean Water Acts simple goals – to restore the chemical, biological and physical integrity of our Nation's waters. All in all, a 30th birthday to be proud of!

EPA Region 8 joined the Big Thompson Watershed Forum (BTWF), U.S. Geological Survey (USGS), Colorado Department of Public Health and Environment (CDPHE), Colorado Division of Water Resources (CDWR) and many others in presenting a full day of talks, posters, training and real hands-on water quality monitoring experiences on the scenic Big Thompson River to celebrate the Act's birthday. The event was hosted by the Sylvan Dale Ranch (**http://www.sylvandale.com/**), just west of Loveland, CO, along the banks of the "Big T." The Big Thompson Watershed begins in the high mountains of Rocky Mountain National Park, flowing east through beautiful forested canyons to join the S. Platte River on Colorado's eastern plains. This watershed hosts a wide variety of uses, ecosystems and communities, exemplifying the diversity of needs and stresses exerted on our precious water resources. Approximately 90 junior high and high school students and members of the public participated in the day's activities. These featured a morning of training and speakers, followed by a picnic lunch and an afternoon of "get your feet wet" field training in water quality assessment sciences.

Bob Zuellig of USGS teaches students about bug sampling and identification

A dedicated corps of volunteer water quality monitors began the day early with training on the science and techniques of measuring stream flows presented by Bob Cooper of the CDWR. The morning line-up of speakers followed including:

Speaker	Agency	Presentation
Rob Buirgy	BTWF	National Water Monitoring Day Concept
Bill Horak	USGS	Collaboration in Water Quality Monitoring
Rich Claggett	USEPA	Goals & Accomplishments of the CWA
Dick Parachini	CDPHE	Achieving Environmental & Health Goals
Kathy Gilliland	Loveland	Mayor's Water Monitoring Day Proclamation
Jack Byers	CDWR	Monitoring Water Quantity in CO
George Parrish	USEPA	Long-Term Water Quality Monitoring and Variability

The poster presentations were equally diverse and very informative. Many of the participating water professionals noted the wealth of ongoing research, monitoring and public outreach work from local to national groups. The exchange was so valuable that the different groups agreed to hold joint sessions during future National Water Monitoring Day events with agency-to-agency poster presentations and discussions.

A picnic lunch was punctuated by the stream electroshocking fish survey work of Randy van Buren's aquatic biology team from the Colorado Division of Wildlife. The crew captured an impressive number of rainbow and brown trout, suckers and dace, and collected species, length and weight data before releasing the fish unharmed. Bob Zuellig and Erik Tate-Boldt (USGS) demonstrated macroinvertebrate (bug) sampling, explaining the use of biological sampling and data in assessing water quality.

Steve Muro of the USGS Water Resources Division set up a stream transect and had participants don wading shoes to join him in the river taking water samples and flow measurements. Tim Bartish of USGS Biological

Resources Division set up a lake sampling exhibit on one of the Sylvan Dale Ranch's ponds demonstrating an Ekman (bottom grab) dredge, Secchi disks, plankton nets, and water column probes for measuring dissolved oxygen, pH, electrical conductivity and temperature.

Sandra Spence and VelRey Lozano from the EPA Region 8 laboratory demonstrated collection of microbiological samples in the river, and analysis of samples for enumeration of total coliforms and *Escherichia coli* (*E. coli*) using the Colilert Quanti-tray™ method. Students were given the opportunity to collect river samples and participate in hands-on training on how to analyze these samples to detect microbial indicators of fecal pollution. Observing the glowing blue cultures under ultraviolet light, Ian Servy, of Pioneer School in Fort Collins shouted: "Holy cow, that's so cool!... That is *weird*." The samples processed by the students were then transported back to the EPA Region 8 laboratory in Golden, CO for incubation and interpretation the following day.

The overwhelming success of the 2002 National Water Monitoring Day events is leading many of the participating agencies and groups to plan early for next year. An interagency planning committee formed in the fall and is presenting plans for National Water Monitoring Day 2003 at the EPA Region 8 Conference Center on March 12, 2003 from 10-12 PM. This years events are focused around a train-the-trainers workshop aimed at teaching secondary school science teachers about the value of, and science behind water quality monitoring. Participants will receive a full day of hands-on training and presentations, along with a binder packed full of in-depth resources and classroom presentation materials. The workshop will also be open to a limited number of local, state and federal agency staff members, with the intention of reaching out to those who having the most exposure to students and the public.

CDW aquatic biologists shocking fish
~Photo by Barb Maynard, BTWF

So stay tuned to the river. And to the Clean Water Act a resounding Happy Birthday! For more information on National Water Monitoring Day 2003 contact the **Big Thompson Watershed Forum** at 970-613-6974, or visit **http://www.btwatershed.org** on the web.

Assessment of Water Resources in the Turkey Creek Watershed

~by Mike Wireman, EPA Region 8

In 1998 the Jefferson County, CO Planning Department and the Jefferson County Health Department initiated a comprehensive assessment of water resources in the Turkey Creek watershed located on the eastern slopes of the Front Range west of Golden, CO. The need for this assessment resulted from the rapid growth within the watershed during the previous 10 years. More than 10,000 people live within the 47 square mile watershed. There are more than 3800 homes with private domestic wells and septic tanks. The watershed is entirely underlain by fractured granites and metamorphic rocks.

The field work, data collection, data synthesis and reporting was conducted primarily by the US Geological Survey (USGS) with help from private citizen volunteers. Guidance and oversight has been provided by a Steering Committee comprised of representatives of Federal, State and local governments as well as the public. Funding was provided by Jefferson County and EPA Region 8 with some matching funds from the USGS.

Extensive data and information were collected on the occurrence, flow and quality of ground water in the fractured rock aquifers. A variety of characterization tools and approaches were used to evaluate and analyze the information and data including, outcrop mapping, surface and ground-water quality analyses, collection and analyses of evapotranspiration data, hydrograph analyses and numerical modeling (Precipitation Runoff Modeling System (PRMS)). The focus of the data collection and analyses was to develop a sound conceptual understanding of the aquifers/groundwater systems within the watershed including the hydrologic relationships between ground water and the major streams which drain the watershed. The results will help the State and County governments manage water resources in the western part of Jefferson County in a more sustainable manner. This is a critical need considering the significant growth in western Jefferson County, the associated increased demand for ground water for domestic supply and the ongoing drought conditions. Jefferson County will rely on the results of the assessment to develop water management and land use guidelines that will help assure a sustainable water supply well into the future.

The results of the assessment will be published by the United States Geological Survey in a Water Resources Investigations Report entitled **Hydrologic Conditions and Assessment of Water Resources in the Turkey Creek Watershed, Jefferson County, Colorado, 1998-2000** (WRIR-03-4034). The report is expected by the end of April, 2003. For more information, please contact **Mike Wireman** at 303-312-6719 or **wireman.mike@epa.gov**

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Biocriteria Part II

~Karen Hamilton, EPA Region 8

This is the sixth article in a series describing how the Clean Water Act is linked to watershed planning and implementation. The previous articles described the Clean Water Act components that are analogous to a generic watershed plan, water quality standards, total maximum daily loads, data for watershed management, and biocriteria part I. Water Quality Standards were discussed in Natural News Spring 2001. Biocriteria Part I was presented in Natural News Fall 2002 Issue 15. The entire standards package includes a designated use for the water body, such as cold-water aquatic life, whole body contact, and agriculture; the narrative or numeric water quality criteria that are meant to be protective of those uses; and an antidegradation policy. This article delves into a more technical description of Biocriteria.

A water body is more fully described when a description of the structure and function of an aquatic biological community within a specific habitat is added to its chemical and physical description. Biological criteria for a water body are developed with in-depth knowledge of the kind of aquatic community that would be expected without anthropogenic (man-made) disturbance. Like chemical and physical criteria, biological criteria describe conditions that should be present to demonstrate that the uses established for a particular water body are being met and protected.

Aquatic biologic communities that would be found in water bodies unimpaired by human disturbance would exhibit "biological integrity." Biological integrity is defined as: *The condition of the aquatic community inhabiting the unimpaired waterbodies of a specified habitat as measured by community structure and function.*

It can be difficult to find unimpaired waters to define biological integrity and establish the reference condition. However, there are several ways to approximate biological integrity of high quality waters. The best representation of biological integrity of a water body should form the basis on which to establish water quality goals for that water body. Limitations on biological integrity are also considered and incorporated into the process of developing biological criteria

"The song of the river ends not at her banks, but in the hearts of those who have loved her."

~Buffalo Joe

Biological integrity describes the ultimate goal for water quality; biological criteria are based on aquatic community structure and function for waters within a variety of designated uses. Biological criteria are narrative expressions or numerical values that describe the biological integrity of aquatic communities inhabiting waters of a given designated aquatic life use.

Designated aquatic life uses are general statements of attained or attainable uses of State waters. Biological criteria are values used to determine whether a use is impaired, and if so, the level of impairment. This is done by specifying what aquatic community structure and function should exist in waters of a given designated use. Then this condition is compared with the condition of a site under evaluation. If the existing aquatic community measures fail to meet the criteria, the use is considered impaired.

Narrative criteria may include specific classes and species of organisms that will occur in waters for a given designated use. Field evaluations of reference conditions are necessary to identify biological community attributes that differ significantly between designated uses. For example in the Arkansas River use class *Typical Gulf Coastal Ecoregion* (i.e., South Central Plains) the narrative criterion reads: *Streams supporting diverse communities of indigenous or adapted species of fish and other forms of aquatic life. Fish communities are characterized by a limited proportion of sensitive species; sunfishes are distinctly dominant, followed by darters and minnows. The community may be generally characterized by the following fishes: Key Species - Redfin shiner, Spotted sucker, Yellow bullhead, Flier, Slough darter, Grass pickerel; Indicator Species - Pirate perch, Warmouth, Spotted sunfish, Dusky darter, Creek chubsucker, Banded pygmy sunfish.*

In Connecticut, current designated uses are supported by narratives in the standard. For example, under Surface Water Classifications, Inland Surface Waters Class AA, the Designated Use is: "Existing or proposed drinking water supply; fish and wildlife habitat; recreational use; agricultural, industrial supply, and other purposes (recreation uses may be restricted)." The supporting narratives include; *Benthic invertebrates which inhabit lotic waters: A wide variety of macroinvertebrate taxa should normally be present and all functional groups should normally be well represented. Water quality shall be sufficient to sustain a diverse macroinvertebrate community of indigenous species. Taxa with the Orders Plecoptera (stoneflies), Ephemeroptera (mayflies), Coleoptera (beetles), Tricoptera (caddisflies) should be well represented.*

Numeric biological criteria can also be developed with careful assessments of biota in reference sites. Various indices and measures have been created that put biological data into a numerical description. Examples of relative measures include similarity indices, coefficients of community loss, and comparisons of lists of dominant taxa. Measures of existing community structure such as species

richness, presence or absence of indicator taxa, and distribution of trophic feeding groups are useful for establishing the normal range of community components to be expected in unimpaired systems. Because no single metric or index is free from bias, a multi-metric approach is often preferred because it incorporates information on species richness, trophic composition, abundance or biomass, and organism condition.

For further information on the biocriteria framework and its implementation using scientific methods see **http://www.epa.gov/waterscience/biocriteria/**

Stormwater Regulations

~by Greg Davis, EPA Region 8

The National Pollutant Discharge Elimination System (NPDES) storm water regulations were written in a phased approach. Recent (Phase II) storm water regulations expand the universe of those entities requiring a storm water permit. Effective March 10, 2003, operators of small municipal separate storm sewer systems and operators of small construction projects will be required to obtain NPDES permit coverage for their storm water discharges. The following article is part one of a two-part series, the first of which will describe the Phase II Storm Water Rule as it applies to construction activities. The second article will describe rules for storm water permit coverage as they apply to regulated small municipal separate storm sewer systems.

In 1990, EPA promulgated rules under the Clean Water Act establishing Phase I of the NPDES storm water program. Phase I of the NPDES storm water program addresses discharges from large construction activities disturbing five or more acres of land. Recent regulations, referred to as the Phase II Storm Water Rule, expand the requirements for construction operators by requiring NPDES permit coverage for storm water discharges from small construction activities. Effective March 10, 2003, owner/operators of small construction activities will be required to obtain an NPDES permit for their storm water discharges, where those discharges enter US surface waters or a storm drain leading to US surface waters.

Small construction activities are defined as those that cause a land disturbance of greater than one acre and less than five acres over the course of the project. "Disturbance" refers to exposed soil resulting from activities such as clearing, grading, and excavating. Specifically, a small construction activity is one that:

1. Will disturb one or more and less than five acres of land; or
2. Will disturb less than one acre but is part of a larger common plan of development or sale whose total land disturbing activities total between one and five acres (or is designated by the NPDES permitting authority); and
3. Will discharge storm water runoff from the construction site to an MS4 or waters of the United States.

What is required for operators of small construction projects?

The requirements for small construction projects are not fully defined in the Phase II Rule but rather in the NPDES permit issued by the NPDES permitting authority. Owner/operators of small construction projects are required to apply for permit coverage under a general permit. The requirements set forth in this permit may vary depending on the permitting authority, but in general, construction operators will be required to develop and implement a storm water pollution prevention plan (SWPPP). This SWPPP should outline the appropriate best management practices (BMPs) that will be used to minimize the discharge or pollutants from the site to the maximum extent practicable. Acceptable practices (BMPs) that could be used to minimize pollutants discharged in storm water runoff from disturbed areas include both non-structural and structural BMPs. Examples of non-structural BMPs include implementing practices that minimize disturbance to the site and preserving natural vegetation. Structural BMPs include physical means for minimizing erosion and sediment transport from the site. Examples of structural BMPs include mulching, seeding disturbed areas, installing silt fences, stabilizing construction entrances, and using sediment traps. Additional requirements for small construction operators may vary depending on the jurisdiction with permitting authority and the NPDES permit developed to cover storm water discharges from small construction activities.

Who is the permitting authority for small construction activities in my area?

EPA Region 8 maintains NPDES permitting authority for storm water discharges from construction activities located on Region 8 Indian Country and for small construction activities located on Federal Facilities in the State of Colorado. The EPA small construction proposed general permit is currently available for public comment. In other areas of Region 8, the states of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming, retain permitting authority for storm water discharges from small construction.

Where can I get more information about these requirements?

The EPA Region 8 storm water web site **http://www.epa.gov/region8/water/stormwater** contains links to the EPA proposed general permit for storm water discharges from small construction activities and links to the various state agencies who maintain permit coverage within the Region 8 States. A fact sheet series describing the Phase II Storm Water Regulations and the requirements specific to operators of small construction activities is available on the EPA Office of Water web site at **http://cfpub.epa.gov/npdes/stormwater/swfinal.cfm** Specific questions can be E-mailed to **Greg Davis** at EPA Region 8 at **davis.gregory@epa.gov**

River Network River Rally 2003
~Contributed by Stacey Eriksen, EPA Region 8

This year's River Rally will be held in Stevenson, Washington near the Columbia River Gorge at the Skamania Lodge May 9-13, 2003. Rally workshops are geared to both new organizations and those which have been in existence for a number of years. The Rally provides an invaluable opportunity for directors, staff, board members and volunteers or anyone committed to understanding, protecting and restoring watersheds to: Learn the basics of river and watershed protection, or explore new policy initiatives, cutting-edge techniques and in-depth case studies. Find out how to start a new organization, build excellence in an established group, foster a healthy working environment, communicate with the public, and raise funds. Meet colleagues who have common interests and enlightening experiences to share. Talk with funders about the current funding climate and how to find support for your organization or project. Inspire new staff, board members and volunteers and bring them up to speed on river and watershed issues. Renew and reinvigorate yourself for the work ahead. For more information, contact the Rally hotline at 1-800-639-8108 or E-mail **riverrally@rivernetwork.org** or check out River Network's Rally website at **http://www.rivernetwork.org/howwecanhelp/howrally.cfm**

Consolidated Funding Process Update
~by Pam Dougherty, EPA Region 8

EPA Region 8 currently has 146 proposals in house following the Fiscal Year 2003 Consolidated Funding Process (CFP) Request for Proposals (RFP). The addition this year to the CFP of electronic submittals presented us with many new and unanticipated challenges. At this time the proposals are going through our review and evaluation process where each of the four funding areas under CFP (Regional Geographic Initiative, Total Maximum Daily Loads, National Pollution Discharge Elimination System, and Wetlands) follows a specific review process developed for their program based on their program criteria and the strengthening factors listed in the RFP. Each proposal will be evaluated and scored by several EPA Region 8 staff members and/or teams who work in that specific program area. At the same time, we will be seeking input (in the form of written comments and priorities) from our state partners for each of the proposals submitted for their state. The review and evaluation process will lead to a ranked list of recommendations which will be forwarded to the approval official who will make the final decision of which proposals will be funded.

As of today, EPA continues to operate under a Continuing Resolution since the Agency's budget has not yet been passed by Congress. Due to our continuing budget uncertainties all dates are approximate and may change depending on when we get an operating plan. Currently all reviews and evaluations are expected to be completed by early March. Final decisions for funding will be released depending on final funding amounts when we receive a budget. Please look for further updates at our website **http://www.epa.gov/region08/community_resources/ecoprotection/newgrant.html**
For more information, please contact **Pam Dougherty** at 303-312-6012 or **dougherty.pam@epa.gov**

Riverbank Erosion Guide Now Available
~by Peter Ismert, EPA Region 8

A new publication is available titled Tools for Addressing Riverbank Erosion: Guidelines for Communities and Landowners Along the Upper Missouri River. This small guide book distills a great deal of technical information for easy reference. It describes the natural processes of a large river like the Missouri, and lists tools that landowners and local governments can use to protect the riverbank lands and maintain natural river processes. It reviews bank erosion issues along the Upper Missouri River, then lays out available options and resources to address these issues. Copies are available at EPA Region 8 in Denver, Colorado. To obtain FREE copies, please contact **John DiPentino** at 303-312-6594 or **dipentino.john@epa.gov**

Wetlands Poster Now Available
~by Paul McIver, EPA Region 8

A new wetlands poster is available from EPA Region 8 that describes various isolated wetlands found in the region and is entitled "Vulnerable Wetlands." There are several beautiful colorful photographs along with a short text that describes the importance of these wetlands and why they are vulnerable to loss. The poster also encourages the public to get involved in the monitoring of these wetlands. To get a FREE copy of the poster, please contact **Paul McIver** at 303-312-6056 or email at **mciver.paul@epa.gov**

A Guide to Understanding a Sense of Place Now Available
~Contributed by Stacey Eriksen, EPA Region 8

The USEPA's Community Culture and the Environment: A Guide to Understanding a Sense of Place is available for ordering. The Guide explores the concepts of community and culture and provides tools for identifying, assessing, and working cooperatively within the social dynamics and local values connected to environmental protection. These tools will help you define your community, identify stakeholders, enhance education and outreach, build partnerships and consensus, identify resources, plan and set goals, and integrate local realities with ecological issues. The Guide is designed for people involved in community-based initiatives, including those affiliated with community and

watershed-based organizations, universities, and federal, state, tribal, and local agencies. Learn more about how this valuable resource can help you achieve your environmental protection goals by visiting **http://www.epa.gov/ecocommunity/tools/community.pdf**

To request a FREE copy of the Guide through the National Service Center for Environmental Publications (NSCEP), call 1-800-490-9198 or send your request in an email to **ncepimal@one.net** Remember to include your complete mailing address and the Guide's publication number - EPA 842-B-01-003. For more information about the Guide or Community Culture and the Environment trainings, send an email to **CCEinfo@tetratech-ffx.com** or call 410-356-8993.

Advanced Notice of Proposed Rule Making

~Contributed by Dave Ruiter, EPA Region 8

In January, 2003, the U.S. Environmental Protection Agency and the U.S. Army announced the publication of an Advance Notice of Proposed Rule Making (ANPRM) to solicit from the public data and information to clarify the extent of Clean Water Act (CWA) coverage in light of the January 2001 Supreme Court decision in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers et al.*

The ANPRM is on the CWA Regulatory Definition of "Waters of the United States." The ANPRM will help ensure that the regulations are consistent with the CWA and that the public understands what waters are subject to CWA jurisdiction. **Public comments on the ANPRM are requested prior to March 3, 2003.** The Federal Register document and additional information are available on the Corps Regulatory Branch home page at **http://www.usace.army.mil/inet/functions/cw/cecwo/reg/citizen.htm** Interested persons may also contact EPA's Wetlands Helpline at 1-800-832-7828 to obtain copies.

Web Highlights

~Contributed by Stacey Eriksen, EPA Region 8

Database on State Water Quality Standards and Designated Uses

EPA is developing an on-line National Water Quality Standards Database (WQSDB) to improve public access to information about how waters are being protected and to empower the public to better understand how actions in their watershed can help or harm those waters. The first phase will allow users to access information on "designated uses." These uses, which are set by the state, describe the functions that each waterbody is intended to support water or other use. The second phase of the WQSDB will add numeric "water quality criteria," representing the quality of water that supports particular uses. When completed, the WQSDB will allow access to maps and tables for all surface water bodies across the nation. You can visit the database at: **http://www.epa.gov/wqsdatabase** or download fact sheets at **http://www.epa.gov/wqsdatabase/demo/docs/wqsdatabase.pdf** and **http://www.epa.gov/wqsdatabase/demo/docs/wqsrep.pdf**

Year of Clean Water Materials

EPA's Office of Water is providing a number of new materials in celebration of the 30th Anniversary of the Clean Water Act. Visit **http://www.epa.gov/water yearofcleanwater/month.html** to download articles, commentaries, brochures, posters, and publications on a variety of water issues.

EPA's Urbanized Area Maps

EPA has developed a set of digitized maps for each urbanized area (PDF Format) as defined by the 2000 US Census. These maps are intended to assist authorized states and EPA Regional Offices for unauthorized states) as they develop their Phase II municipal programs and permits. Municipalities will also find these maps useful as they outline the area that will require coverage under an National Pollution Discharge Elimination System permit and development and implementation of a Storm Water Pollution Prevention Plan. Check this resource out at: **http://cfpub.epa.gov/npdes/stormwater/urbanmaps.cfm**

NOAA Web Site Consolidates Funding Information

NOAA's Coastal Services Center site now offers coastal managers information on grant-funding opportunities by the NOAA Coastal Services Center and other relevant organizations. This site also provides links to many free resources, including articles, tutorials, and tips that will help managers and staff through the grant-writing process. Check their website at **http://www.csc.noaa.gov/text/grant.html**

Management Change

~by Stacey Eriksen, EPA Region 8

There has been a management change in the EPA Region 8 Ecosystem Protection Program. Karen Hamilton has moved from the Chief of the Resource Protection and Stewardship Unit to the Water Quality Unit. Karen can be reached at 303-312-6236 or **hamilton.karen@epa.gov** Ayn Schmit is the new Chief of the Resource Protection and Stewardship Unit which includes the Ecosystem Stewardship Team and the Source Water/Ground Water Team. Ayn can be reached at 303-312-6220 or **schmit.ayn@epa.gov** Congratulations to both of them.

What makes a river so restful to people is that it doesn't have any doubt - it is sure to get where it is going, and it doesn't want to go anywhere else." ~Hal Boyle

Ecosystem Protection Contacts

Volunteer Monitoring
Tina Laidlaw (406) 457-5016
laidlaw.tina@epa.gov

Wetlands
Paul McIver (303) 312-6056
mciver.paul@epa.gov

Watersheds and Community-Based Environmental Protection
Marc Alston (303) 312-6556
alston.marc@epa.gov

Ground Water
Darcy Campbell (303) 312-6709
campbell.darcy@epa.gov

Nonpoint Source Pollution
Kim Bartels (303) 312-6212
bartels.kim@epa.gov

EPA Region 8 Environmental Information Service Center
1-800-227-8917

Natural News

Editor: Stacey Eriksen

Layout: Jodie Corbishley

If you have an article concerning ecosystem protection, community based environmental protection, or watersheds; we would like to hear from you!

We need your help in updating our mailing list in order to keep Natural News coming to you! Please contact John DiPentino at (303) 312-6594 or dipentino.john@epa.gov, or write to him at the return address below.

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Natural News Editor
Stacey Eriksen (303) 312-6692
eriksen.stacey@epa.gov
(800)227-8917 x6692

Ecosystem Stewardship on the web: **http://www.epa.gov/region8/community_resources/steward/est.html**

U.S. EPA
999 18th Street, Suite 300
8EPR-EP
Denver, CO 80202-2466